What is claimed is:

1. An isolated nucleic acid encoding a mammalian SNORF62 receptor.

2. An isolated nucleic acid encoding a mammalian SNORF72 receptor.

3. The nucleic acid of claim 1 or claim 2, wherein the nucleic acid is DNA.

4. The DNA of claim 3, wherein the DNA is cDNA.

5. The DNA of claim 3, wherein the DNA is genomic DNA.

6. The nucleic acid of claim 1 or claim 2, wherein the nucleic acid is RNA.

7. The nucleic acid of claim 1, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor.

8. The nucleic acid of claim 2, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor.

9. The nucleic acid of claim 7, wherein the human SNORF62 receptor has an amino acid sequence identical to that encoded by the plasmid pEXJ.T3T7-hSNORF62-f (Patent Deposit Designation No. PTA-1042).

10. The nucleic acid of claim 8, wherein the human SNORF72 receptor has an amino acid sequence identical to that encoded by the plasmid pEXJ.T3T7-hSNORF72-f (Patent Deposit Designation No. PTA-1446).

11. The nucleic acid of claim 7, wherein the human SNORF62

receptor has an amino acid sequence identical to the amino acid sequence shown in Figures 2A-2B (SEQ ID NO: 2).

12. The nucleic acid of claim 8, wherein the human SNORF72 receptor has an amino acid sequence identical to the amino acid sequence shown in Figures 4A-4B (SEQ ID NO: 4).

13. The nucleic acid of claim 2, wherein the mammalian SNORF72 receptor is a rat SNORF72 receptor.

14. The nucleic acid of claim 13, wherein the rat SNORF72 receptor has an amino acid sequence identical to that encoded by the plasmid pEXJ.BS-rSNORF72-f (Patent Deposit Designation No. PTA-1927).

15. The nucleic acid of claim 13, wherein the rat SNORF72 receptor has an amino acid sequence identical to the amino acid sequence shown in Figures 15A-15B (SEQ ID NO: 25).

16. The nucleic acid of claim 1, wherein the mammalian SNORF62 receptor is a rat SNORF62a receptor having an amino acid sequence identical to the amino acid sequence shown in Figures 18A-18B (SEQ ID NO: 27).

17. The nucleic acid of claim 1, wherein the mammalian SNORF62 receptor is a rat SNORF62b receptor having an amino acid sequence identical to the amino acid sequence shown in Figures 20A-20B (SEQ ID NO: 29).

18. A purified mammalian SNORF62 receptor protein.

19. A purified mammalian SNORF72 receptor protein.

20. The purified mammalian SNORF62 receptor protein of claim 18, wherein the mammalian SNORF62 receptor protein is a human SNORF62 receptor protein.

21. The purified mammalian SNORF72 receptor protein of claim 19, wherein the mammalian SNORF72 receptor protein is a human SNORF72 receptor protein or a rat SNORF72 receptor protein.

22. A vector comprising the nucleic acid of claim 1 or claim 7.

23. A vector comprising the nucleic acid of claim 2 or claim 8.

24. A vector of claim 22 or 23 adapted for expression in a cell which comprises the regulatory elements necessary for expression of the nucleic acid in the cell operatively linked to the nucleic acid encoding the receptor so as to permit expression thereof, wherein the cell is a bacterial, amphibian, yeast, insect or mammalian cell.

25. The vector of claim 24, wherein the vector is a baculovirus.

26. The vector of claim 22 or 23, wherein the vector is a plasmid.

27. The plasmid of claim 26 designated pEXJ.T3T7-hSNORF62-f (Patent Deposit Designation No. PTA-1042).

28. The plasmid of claim 26 designated pEXJ.T3T7-hSNORF72-f (Patent Deposit Designation No. PTA-1446).

29. The plasmid of claim 26 designated pEXJ.BS-rSNORF72-f (Patent Deposit Designation No. PTA-1927).

30. A cell comprising the vector of claim 24.

31. A cell of claim 30, wherein the cell is a non-mammalian cell.

32. A cell of claim 31, wherein the non-mammalian cell is a *Xenopus* oocyte cell or a *Xenopus* melanophore cell.

33. A cell of claim 30, wherein the cell is a mammalian cell.

34. A mammalian cell of claim 33, wherein the cell is a COS-7 cell, a 293 human embryonic kidney cell, a NIH-3T3 cell, a LM(tk-) cell, a mouse Y1 cell, or a CHO cell.

35. A cell of claim 30, wherein the cell is an insect cell.

36. An insect cell of claim 35, wherein the insect cell is an Sf9 cell, an Sf21 cell or a Trichoplusia ni 5B-4 cell.

37. A membrane preparation isolated from the cell of any one of claims 30, 31, 33, 34, 35 or 36.

38. A nucleic acid probe comprising at least 15 nucleotides, which probe specifically hybridizes with a nucleic acid encoding a mammalian SNORF62 receptor, wherein the probe has a sequence complementary to a unique sequence present within one of the two strands of the nucleic acid encoding the human SNORF62 receptor contained in plasmid pEXJ.T3T7-hSNORF62-f (Patent Deposit Designation No. PTA-1042).

39. A nucleic acid probe comprising at least 15 nucleotides,

which probe specifically hybridizes with a nucleic acid encoding a mammalian SNORF72 receptor, wherein the probe has a sequence complementary to a unique sequence present within one of the two strands of the nucleic acid encoding the human SNORF72 receptor contained in plasmid pEXJ.T3T7-hSNORF72-f (Patent Deposit Designation No. PTA-1446).

40. A nucleic acid probe comprising at least 15 nucleotides, which probe specifically hybridizes with a nucleic acid encoding a mammalian SNORF72 receptor, wherein the probe has a sequence complementary to a unique sequence present within one of the two strands of the nucleic acid encoding the rat SNORF72 receptor contained in plasmid pEXJ.BS-rSNORF72-f (Patent Deposit Designation No. PTA-1927).

41. A nucleic acid probe comprising at least 15 nucleotides, which probe specifically hybridizes with a nucleic acid encoding a mammalian SNORF62 receptor, wherein the probe has a sequence complementary to a unique sequence present within (a) the nucleic acid sequence shown in Figures 1A-1B (SEQ ID NO: 1) or (b) the reverse complement thereof.

42. A nucleic acid probe comprising at least 15 nucleotides, which probe specifically hybridizes with a nucleic acid encoding a mammalian SNORF72 receptor, wherein the probe has a sequence complementary to a unique sequence present within (a) the nucleic acid sequence shown in Figures 3A-3B (SEQ ID NO: 3) or (b) the reverse complement thereof.

43. A nucleic acid probe comprising at least 15 nucleotides, which probe specifically hybridizes with a nucleic acid encoding a mammalian SNORF72 receptor, wherein the probe has a sequence complementary to a unique sequence present

within (a) the nucleic acid sequence shown in Figures 15A-15B (SEQ ID NO: 25) or (b) the reverse complement thereof.

44. The nucleic acid probe of claim 41, 42 or 43, wherein the nucleic acid is DNA.

45. The nucleic acid probe of claim 41, 42 or 43, wherein the nucleic acid is RNA.

46. An antisense oligonucleotide having a sequence capable of specifically hybridizing to the RNA of claim 6, so as to prevent translation of the RNA.

47. An antisense oligonucleotide having a sequence capable of specifically hybridizing to the genomic DNA of claim 5, so as to prevent transcription of the genomic DNA.

48. An antisense oligonucleotide of claim 46 or 47, wherein the oligonucleotide comprises chemically modified nucleotides or nucleotide analogues.

49. An antibody capable of binding to a mammalian SNORF62 receptor encoded by the nucleic acid of claim 1.

50. An antibody capable of binding to a mammalian SNORF72 receptor encoded by the nucleic acid of claim 2.

51. An antibody of claim 49, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor.

52. An antibody of claim 50, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

53. An agent capable of competitively inhibiting the binding of the antibody of claim 49 to a mammalian SNORF62 receptor.

54. An agent capable of competitively inhibiting the binding of the antibody of claim 50 to a mammalian SNORF72 receptor.

55. An antibody of claim 53 or 54, wherein the antibody is a monoclonal antibody or antisera.

56. A pharmaceutical composition comprising (a) an amount of the oligonucleotide of claim 46 capable of passing through a cell membrane and effective to reduce expression of a mammalian SNORF62 or SNORF72 receptor and (b) a pharmaceutically acceptable carrier capable of passing through the cell membrane.

57. A pharmaceutical composition of claim 56, wherein the oligonucleotide is coupled to a substance which inactivates mRNA.

58. A pharmaceutical composition of claim 57, wherein the substance which inactivates mRNA is a ribozyme.

59. A pharmaceutical composition of claim 57, wherein the pharmaceutically acceptable carrier comprises a structure which binds to a mammalian SNORF62 receptor or a mammalian SNORF72 receptor on a cell capable of being taken up by the cells after binding to the structure.

60. A pharmaceutical composition of claim 59, wherein the pharmaceutically acceptable carrier is capable of binding to a mammalian SNORF62 receptor or a mammalian SNORF72 receptor which is specific for a selected cell type.

61. A pharmaceutical composition which comprises an amount of the antibody of claim 49 effective to block binding of a ligand to a human SNORF62 receptor and a pharmaceutically acceptable carrier.

62. A pharmaceutical composition which comprises an amount of the antibody of claim 50 effective to block binding of a ligand to a human SNORF72 receptor and a pharmaceutically acceptable carrier.

63. A transgenic, nonhuman mammal expressing DNA encoding a mammalian SNORF62 receptor of claim 1.

64. A transgenic, nonhuman mammal expressing DNA encoding a mammalian SNORF72 receptor of claim 2.

65. A transgenic, nonhuman mammal comprising a homologous recombination knockout of the native mammalian SNORF62 receptor.

66. A transgenic, nonhuman mammal comprising a homologous recombination knockout of the native mammalian SNORF72 receptor.

67. A transgenic, nonhuman mammal whose genome comprises antisense DNA complementary to the DNA encoding a mammalian SNORF62 receptor of claim 1 so placed within the genome as to be transcribed into antisense mRNA which is complementary to and hybridizes with mRNA encoding the mammalian SNORF62 receptor so as to thereby reduce translation of such mRNA and expression of such receptor.

68. A transgenic, nonhuman mammal whose genome comprises antisense DNA complementary to the DNA encoding a mammalian SNORF72 receptor of claim 2 so placed within

the genome as to be transcribed into antisense mRNA which is complementary to and hybridizes with mRNA encoding the mammalian SNORF72 receptor so as to thereby reduce translation of such mRNA and expression of such receptor.

69. The transgenic, nonhuman mammal of claim 63, 64, 65 or 66, wherein the DNA encoding the mammalian SNORF62 or SNORF72 receptor additionally comprises an inducible promoter.

70. The transgenic, nonhuman mammal of claim 63, 64, 65 or 66, wherein the DNA encoding the mammalian SNORF62 or SNORF72 receptor additionally comprises tissue specific regulatory elements.

71. A transgenic, nonhuman mammal of claim 63, 64, 65 or 66, wherein the transgenic, nonhuman mammal is a mouse.

72. A process for identifying a chemical compound which specifically binds to a mammalian SNORF62 receptor which comprises contacting cells containing DNA encoding, and expressing on their cell surface, the mammalian SNORF62 receptor, wherein such cells do not normally express the mammalian SNORF62 receptor, with the compound under conditions suitable for binding, and detecting specific binding of the chemical compound to the mammalian SNORF62 receptor.

73. A process for identifying a chemical compound which specifically binds to a mammalian SNORF62 receptor which comprises contacting a membrane preparation from cells containing DNA encoding, and expressing on their cell surface, the mammalian SNORF62 receptor, wherein such cells do not normally express the mammalian SNORF62 receptor, with the compound under conditions suitable for

binding, and detecting specific binding of the chemical compound to the mammalian SNORF62 receptor.

74. A process for identifying a chemical compound which specifically binds to a mammalian SNORF72 receptor which comprises contacting cells containing DNA encoding, and expressing on their cell surface, the mammalian SNORF72 receptor, wherein such cells do not normally express the mammalian SNORF72 receptor, with the compound under conditions suitable for binding, and detecting specific binding of the chemical compound to the mammalian SNORF72 receptor.

75. A process for identifying a chemical compound which specifically binds to a mammalian SNORF72 receptor which comprises contacting a membrane preparation from cells containing DNA encoding, and expressing on their cell surface, the mammalian SNORF72 receptor, wherein such cells do not normally express the mammalian SNORF72 receptor, with the compound under conditions suitable for binding, and detecting specific binding of the chemical compound to the mammalian SNORF72 receptor.

76. The process of claim 72 or 73, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

77. The process of claim 74 or 75, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

78. The process of claim 72 or 73, wherein the mammalian SNORF62 receptor has substantially the same amino acid sequence as the human SNORF62 receptor encoded by plasmid pEXJ.T3T7-hSNORF62-f (Patent Deposit Designation No. PTA-

1042).

79. The process of claim 74 or 75, wherein the mammalian SNORF72 receptor has substantially the same amino acid sequence as the human SNORF72 receptor encoded by the plasmid pEXJ.T3T7-hSNORF72-f (Patent Deposit Designation No. PTA-1446).

80. The process of claim 72 or 73, wherein the mammalian SNORF62 receptor has substantially the same amino acid sequence as that shown in Figures 2A-2B (SEQ ID NO: 2).

81. The process of claim 74 or 75, wherein the mammalian SNORF72 receptor has substantially the same amino acid sequence as that shown in Figures 4A-4B (SEQ ID NO: 4).

82. The process of claim 72 or 73, wherein the mammalian SNORF62 receptor has the amino acid sequence shown in Figures 2A-2B (SEQ ID NO: 2).

83. The process of claim 74 or 75, wherein the mammalian SNORF72 receptor has the amino acid sequence shown in Figures 4A-4B (SEQ ID NO: 4).

84. The process of claim 72 or 73, wherein the compound is not previously known to bind to a mammalian SNORF62 receptor.

85. The process of claim 74 or 75, wherein the compound is not previously known to bind to a mammalian SNORF72 receptor.

86. A compound identified by the process of claim 84 or 85.

87. A process of claim 72, 73, 74 or 75, wherein the cell is

an insect cell.

88. The process of claim 72, 73, 74 or 75, wherein the cell is a mammalian cell.

89. The process of claim 88, wherein the cell is nonneuronal in origin.

90. The process of claim 89, wherein the nonneuronal cell is a COS-7 cell, 293 human embryonic kidney cell, a CHO cell, a NIH-3T3 cell, a mouse Y1 cell, or a LM(tk-) cell.

91. A process of claim 88, wherein the compound is a compound not previously known to bind to a mammalian SNORF62 receptor or a mammalian SNORF72 receptor.

92. A compound identified by the process of claim 91.

93. A process involving competitive binding for identifying a chemical compound which specifically binds to a mammalian NMU receptor which comprises separately contacting cells expressing on their cell surface the mammalian NMU receptor, wherein such cells do not normally express the mammalian NMU receptor, with both the chemical compound and a second chemical compound known to bind to the receptor, and with only the second chemical compound, under conditions suitable for binding of such compounds to the receptor, and detecting specific binding of the chemical compound to the mammalian NMU receptor, a decrease in the binding of the second chemical compound to the mammalian NMU receptor in the presence of the chemical compound being tested indicating that such chemical compound binds to the mammalian NMU receptor.

94. A process involving competitive binding for identifying a chemical compound which specifically binds to a mammalian NMU receptor which comprises separately contacting a membrane preparation from cells expressing on their cell surface the mammalian NMU receptor, wherein such cells do not normally express the mammalian NMU receptor, with both the chemical compound and a second chemical compound known to bind to the receptor, and with only the second chemical compound, under conditions suitable for binding of such compounds to the receptor, and detecting specific binding of the chemical compound to the mammalian NMU receptor, a decrease in the binding of the second chemical compound to the mammalian NMU receptor in the presence of the chemical compound being tested indicating that such chemical compound binds to the mammalian NMU receptor.

95. A process of claim 93 or 94, wherein the mammalian NMU receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

96. A process of claim 93 or 94, wherein the mammalian NMU receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

97. The process of claim 93 or 94, wherein the cell is an insect cell.

98. The process of claim 93 or 94, wherein the cell is a mammalian cell.

99. The process of claim 98, wherein the cell is nonneuronal in origin.

100. The process of claim 99, wherein the nonneuronal cell is

a COS-7 cell, 293 human embryonic kidney cell, a CHO cell, a NIH-3T3 cell, a mouse Y1 cell, or a LM(tk-) cell.

101. The process of claim 100, wherein the compound is not previously known to bind to a mammalian NMU receptor.

102. A compound identified by the process of claim 101.

103. A method of screening a plurality of chemical compounds not known to bind to a mammalian NMU receptor to identify a compound which specifically binds to the mammalian NMU receptor, which comprises

(a) contacting cells transfected with, and expressing, DNA encoding the mammalian NMU receptor with a compound known to bind specifically to the mammalian NMU receptor;

(b) contacting the cells of step (a) with the plurality of compounds not known to bind specifically to the mammalian NMU receptor, under conditions permitting binding of compounds known to bind to the mammalian NMU receptor;

(c) determining whether the binding of the compound known to bind to the mammalian NMU receptor is reduced in the presence of the plurality of compounds, relative to the binding of the compound in the absence of the plurality of compounds; and if so

(d) separately determining the binding to the mammalian NMU receptor of each compound included in the plurality of compounds, so as to thereby identify any compound included therein which specifically

binds to the mammalian NMU receptor.

104. A method of screening a plurality of chemical compounds not known to bind to a mammalian NMU receptor to identify a compound which specifically binds to the mammalian NMU receptor, which comprises

(a) contacting a membrane preparation from cells transfected with, and expressing, DNA encoding the mammalian NMU receptor with the plurality of compounds not known to bind specifically to the mammalian NMU receptor under conditions permitting binding of compounds known to bind to the mammalian NMU receptor;

(b) determining whether the binding of a compound known to bind to the mammalian NMU receptor is reduced in the presence of the plurality of compounds, relative to the binding of the compound in the absence of the plurality of compounds; and if so

(c) separately determining the binding to the mammalian NMU receptor of each compound included in the plurality of compounds, so as to thereby identify any compound included therein which specifically binds to the mammalian NMU receptor.

105. A method of claim 103 or 104, wherein the mammalian NMU receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

106. A method of claim 103 or 104, wherein the mammalian NMU receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

107. A method of claim 103 or 104, wherein the cell is a mammalian cell.

108. A method of claim 107, wherein the mammalian cell is non-neuronal in origin.

109. The method of claim 108, wherein the non-neuronal cell is a COS-7 cell, a 293 human embryonic kidney cell, a LM(tk-) cell, a CHO cell, a mouse Y1 cell, or an NIH-3T3 cell.

110. A method of detecting expression of a mammalian SNORF62 receptor by detecting the presence of mRNA coding for the mammalian SNORF62 receptor which comprises obtaining total mRNA from the cell and contacting the mRNA so obtained with the nucleic acid probe of claim 38 or 41 under hybridizing conditions, detecting the presence of mRNA hybridized to the probe, and thereby detecting the expression of the mammalian SNORF62 receptor by the cell.

111. A method of detecting expression of a mammalian SNORF72 receptor by detecting the presence of mRNA coding for the mammalian SNORF72 receptor which comprises obtaining total mRNA from the cell and contacting the mRNA so obtained with the nucleic acid probe of claim 39 or 42 under hybridizing conditions, detecting the presence of mRNA hybridized to the probe, and thereby detecting the expression of the mammalian SNORF72 receptor by the cell.

112. A method of detecting the presence of a mammalian SNORF62 receptor on the surface of a cell which comprises contacting the cell with the antibody of claim 49 under conditions permitting binding of the antibody to the receptor, detecting the presence of the antibody bound to the cell, and thereby detecting the presence of the

mammalian SNORF62 receptor on the surface of the cell.

113. A method of detecting the presence of a mammalian SNORF72 receptor on the surface of a cell which comprises contacting the cell with the antibody of claim 50 under conditions permitting binding of the antibody to the receptor, detecting the presence of the antibody bound to the cell, and thereby detecting the presence of the mammalian SNORF72 receptor on the surface of the cell.

114. A method of determining the physiological effects of varying levels of activity of mammalian SNORF62 receptors which comprises producing a transgenic, nonhuman mammal of claim 63 whose levels of mammalian SNORF62 receptor activity are varied by use of an inducible promoter which regulates mammalian SNORF62 receptor expression.

115. A method of determining the physiological effects of varying levels of activity of mammalian SNORF72 receptors which comprises producing a transgenic, nonhuman mammal of claim 64 whose levels of mammalian SNORF72 receptor activity are varied by use of an inducible promoter which regulates mammalian SNORF72 receptor expression.

116. A method of determining the physiological effects of varying levels of activity of mammalian SNORF62 receptors which comprises producing a panel of transgenic, nonhuman mammals of claim 63 each expressing a different amount of mammalian SNORF62 receptor.

117. A method of determining the physiological effects of varying levels of activity of mammalian SNORF72 receptors which comprises producing a panel of transgenic, nonhuman mammals of claim 64 each expressing a different amount of mammalian SNORF72 receptor.

118. A method for identifying an antagonist capable of alleviating an abnormality wherein the abnormality is alleviated by decreasing the activity of a mammalian SNORF62 receptor comprising administering a compound to the transgenic, nonhuman mammal of claim 63, 65 or 67, and determining whether the compound alleviates any physiological and/or behavioral abnormality displayed by the transgenic, nonhuman mammal as a result of overactivity of a mammalian SNORF62 receptor, the alleviation of such an abnormality identifying the compound as an antagonist.

119. A method for identifying an antagonist capable of alleviating an abnormality wherein the abnormality is alleviated by decreasing the activity of a mammalian SNORF72 receptor comprising administering a compound to the transgenic, nonhuman mammal of claim 64, 66 or 68, and determining whether the compound alleviates any physiological and/or behavioral abnormality displayed by the transgenic, nonhuman mammal as a result of overactivity of a mammalian SNORF72 receptor, the alleviation of such an abnormality identifying the compound as an antagonist.

120. The method of claim 118, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

121. The method of claim 119, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

122. An antagonist identified by the method of claim 118.

123. An antagonist identified by the method of claim 119.

124. A composition comprising an antagonist of claim 122 and a carrier.

125. A composition comprising an antagonist of claim 123 and a carrier.

126. A method of treating an abnormality in a subject wherein the abnormality is alleviated by decreasing the activity of a mammalian SNORF62 receptor which comprises administering to the subject an effective amount of the pharmaceutical composition of claim 124, thereby treating the abnormality.

127. A method of treating an abnormality in a subject wherein the abnormality is alleviated by decreasing the activity of a mammalian SNORF72 receptor which comprises administering to the subject an effective amount of the pharmaceutical composition of claim 125, thereby treating the abnormality.

128. A method for identifying an agonist capable of alleviating an abnormality in a subject wherein the abnormality is alleviated by increasing the activity of a mammalian SNORF62 receptor comprising administering a compound to the transgenic, nonhuman mammal of claim 63, 65 or 67, and determining whether the compound alleviates any physiological and/or behavioral abnormality displayed by the transgenic, nonhuman mammal, the alleviation of such an abnormality identifying the compound as an agonist.

129. A method for identifying an agonist capable of alleviating an abnormality in a subject wherein the abnormality is alleviated by increasing the activity of a mammalian SNORF72 receptor comprising administering a

compound to the transgenic, nonhuman mammal of claim 64, 66 or 68, and determining whether the compound alleviates any physiological and/or behavioral abnormality displayed by the transgenic, nonhuman mammal, the alleviation of such an abnormality identifying the compound as an agonist.

130. The method of claim 128, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

131. The method of claim 129, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

132. An agonist identified by the method of claim 130.

133. An agonist identified by the method of claim 131.

134. A composition comprising an agonist identified by the method of claim 132 and a carrier.

135. A composition comprising an agonist identified by the method of claim 133 and a carrier.

136. A method of treating an abnormality in a subject wherein the abnormality is alleviated by increasing the activity of a mammalian SNORF62 receptor which comprises administering to the subject an effective amount of the composition of claim 134 so as to thereby treat the abnormality.

137. A method of treating an abnormality in a subject wherein the abnormality is alleviated by increasing the activity of a mammalian SNORF72 receptor which comprises

administering to the subject an effective amount of the composition of claim 135 so as to thereby treat the abnormality.

138. A method for diagnosing a predisposition to a disorder associated with the activity of a specific mammalian allele which comprises:

(a) obtaining DNA of subjects suffering from the disorder;

(b) performing a restriction digest of the DNA with a panel of restriction enzymes;

(c) electrophoretically separating the resulting DNA fragments on a sizing gel;

(d) contacting the resulting gel with a nucleic acid probe capable of specifically hybridizing with a unique sequence included within the sequence of a nucleic acid molecule encoding a mammalian SNORF62 receptor and labeled with a detectable marker;

(e) detecting labeled bands which have hybridized to the DNA encoding a mammalian SNORF62 receptor of claim 1 to create a unique band pattern specific to the DNA of subjects suffering from the disorder;

(f) repeating steps (a)-(e) with DNA obtained for diagnosis from subjects not yet suffering from the disorder; and

(g) comparing the unique band pattern specific to the DNA of subjects suffering from the disorder from step (e) with the band pattern from step (f) for

subjects not yet suffering from the disorder so as to determine whether the patterns are the same or different and thereby diagnose predisposition to the disorder if the patterns are the same.

139. A method for diagnosing a predisposition to a disorder associated with the activity of a specific mammalian allele which comprises:

(a) obtaining DNA of subjects suffering from the disorder;

(b) performing a restriction digest of the DNA with a panel of restriction enzymes;

(c) electrophoretically separating the resulting DNA fragments on a sizing gel;

(d) contacting the resulting gel with a nucleic acid probe capable of specifically hybridizing with a unique sequence included within the sequence of a nucleic acid molecule encoding a mammalian SNORF72 receptor and labeled with a detectable marker;

(e) detecting labeled bands which have hybridized to the DNA encoding a mammalian SNORF72 receptor of claim 2 to create a unique band pattern specific to the DNA of subjects suffering from the disorder;

(f) repeating steps (a)-(e) with DNA obtained for diagnosis from subjects not yet suffering from the disorder; and

(g) comparing the unique band pattern specific to the DNA of subjects suffering from the disorder from

step (e) with the band pattern from step (f) for subjects not yet suffering from the disorder so as to determine whether the patterns are the same or different and thereby diagnose predisposition to the disorder if the patterns are the same.

140. The method of claim 138 or 139, wherein a disorder associated with the activity of a specific mammalian allele is diagnosed.

141. A method of preparing the purified mammalian SNORF62 receptor of claim 18 which comprises:

(a) culturing cells which express the mammalian SNORF62 receptor;

(b) recovering the mammalian SNORF62 receptor from the cells; and

(c) purifying the mammalian SNORF62 receptor so recovered.

142. A method of preparing the purified mammalian SNORF72 receptor of claim 19 which comprises:

(a) culturing cells which express the mammalian SNORF72 receptor;

(b) recovering the mammalian SNORF72 receptor from the cells; and

(c) purifying the mammalian SNORF72 receptor so recovered.

143. A method of preparing the purified mammalian SNORF62

receptor of claim 18 which comprises:

(a) inserting a nucleic acid encoding the mammalian SNORF62 receptor into a suitable expression vector;

(b) introducing the resulting vector into a suitable host cell;

(c) placing the resulting host cell in suitable conditions permitting the production of the mammalian SNORF62 receptor;

(d) recovering the mammalian SNORF62 receptor so produced; and optionally

(e) isolating and/or purifying the mammalian SNORF62 receptor so recovered.

144. A method of preparing the purified mammalian SNORF72 receptor of claim 19 which comprises:

(a) inserting a nucleic acid encoding the mammalian SNORF72 receptor into a suitable expression vector;

(b) introducing the resulting vector into a suitable host cell;

(c) placing the resulting host cell in suitable conditions permitting the production of the mammalian SNORF72 receptor;

(d) recovering the mammalian SNORF72 receptor so produced; and optionally

(e) isolating and/or purifying the mammalian SNORF72

receptor so recovered.

145. A process for determining whether a chemical compound is a mammalian SNORF62 receptor agonist which comprises contacting cells transfected with and expressing DNA encoding the mammalian SNORF62 receptor with the compound under conditions permitting the activation of the mammalian SNORF62 receptor, and detecting any increase in mammalian SNORF62 receptor activity, so as to thereby determine whether the compound is a mammalian SNORF62 receptor agonist.

146. A process for determining whether a chemical compound is a mammalian SNORF62 receptor antagonist which comprises contacting cells transfected with and expressing DNA encoding the mammalian SNORF62 receptor with the compound in the presence of a known mammalian SNORF62 receptor agonist, under conditions permitting the activation of the mammalian SNORF62 receptor, and detecting any decrease in mammalian SNORF62 receptor activity, so as to thereby determine whether the compound is a mammalian SNORF62 receptor antagonist.

147. A process for determining whether a chemical compound is a mammalian SNORF72 receptor agonist which comprises contacting cells transfected with and expressing DNA encoding the mammalian SNORF72 receptor with the compound under conditions permitting the activation of the mammalian SNORF72 receptor, and detecting any increase in mammalian SNORF72 receptor activity, so as to thereby determine whether the compound is a mammalian SNORF72 receptor agonist.

148. A process for determining whether a chemical compound is a mammalian SNORF72 receptor antagonist which comprises

contacting cells transfected with and expressing DNA encoding the mammalian SNORF72 receptor with the compound in the presence of a known mammalian SNORF72 receptor agonist, under conditions permitting the activation of the mammalian SNORF72 receptor, and detecting any decrease in mammalian SNORF72 receptor activity, so as to thereby determine whether the compound is a mammalian SNORF72 receptor antagonist.

149. A process of claim 145 or 146, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

150. A process of claim 147 or 148, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

151. A composition which comprises an amount of a SNORF62 receptor agonist determined by the process of claim 145 effective to increase activity of a mammalian SNORF62 receptor and a carrier.

152. A composition which comprises an amount of a SNORF72 receptor agonist determined by the process of claim 147 effective to increase activity of a mammalian SNORF72 receptor and a carrier.

153. A composition of claim 151, wherein the mammalian SNORF62 receptor agonist is not previously known.

154. A composition of claim 152, wherein the mammalian SNORF72 receptor agonist is not previously known.

155. A composition which comprises an amount of a mammalian SNORF62 receptor antagonist determined by the process of

claim 146 effective to reduce activity of a mammalian SNORF62 receptor and a carrier.

156. A composition which comprises an amount of a mammalian SNORF72 receptor antagonist determined by the process of claim 148 effective to reduce activity of a mammalian SNORF72 receptor and a carrier.

157. A composition of claim 155, wherein the mammalian SNORF62 receptor antagonist is not previously known.

158. A composition of claim 156, wherein the mammalian SNORF72 receptor antagonist is not previously known.

159. A process for determining whether a chemical compound specifically binds to and activates a mammalian SNORF62 receptor, which comprises contacting cells producing a second messenger response and expressing on their cell surface the mammalian SNORF62 receptor, wherein such cells do not normally express the mammalian SNORF62 receptor, with the chemical compound under conditions suitable for activation of the mammalian SNORF62 receptor, and measuring the second messenger response in the presence and in the absence of the chemical compound, a change in the second messenger response in the presence of the chemical compound indicating that the compound activates the mammalian SNORF62 receptor.

160. A process for determining whether a chemical compound specifically binds to and activates a mammalian SNORF72 receptor, which comprises contacting cells producing a second messenger response and expressing on their cell surface the mammalian SNORF72 receptor, wherein such cells do not normally express the mammalian SNORF72 receptor, with the chemical compound under conditions

suitable for activation of the mammalian SNORF72 receptor, and measuring the second messenger response in the presence and in the absence of the chemical compound, a change in the second messenger response in the presence of the chemical compound indicating that the compound activates the mammalian SNORF72 receptor.

161. The process of claim 159 or 160, wherein the second messenger response comprises chloride channel activation and the change in second messenger is an increase in the level of chloride current.

162. The process of claim 159 or 160, wherein the second messenger response comprises intracellular calcium levels and the change in second messenger is an increase in the measure of intracellular calcium.

163. The process of claim 159 or 160, wherein the second messenger response comprises release of inositol phosphate and the change in second messenger is an increase in the level of inositol phosphate.

164. A process for determining whether a chemical compound specifically binds to and inhibits activation of a mammalian NMU receptor, which comprises separately contacting cells producing a second messenger response and expressing on their cell surface the mammalian NMU receptor, wherein such cells do not normally express the mammalian NMU receptor, with both the chemical compound and a second chemical compound known to activate the mammalian NMU receptor, and with only the second chemical compound, under conditions suitable for activation of the mammalian NMU receptor, and measuring the second messenger response in the presence of only the second chemical compound and in the presence of both the second

chemical compound and the chemical compound, a smaller change in the second messenger response in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound indicating that the chemical compound inhibits activation of the mammalian NMU receptor.

165. The process of claim 164, wherein the second messenger response comprises chloride channel activation and the change in second messenger response is a smaller increase in the level of chloride current in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound.

166. The process of claim 164, wherein the second messenger response comprises change in intracellular calcium levels and the change in second messenger response is a smaller increase in the measure of intracellular calcium in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound.

167. The process of claim 164, wherein the second messenger response comprises release of inositol phosphate and the change in second messenger response is a smaller increase in the level of inositol phosphate in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound.

168. A process of any of claims 164, 165, 166 or 167, wherein the mammalian NMU receptor is a human or rat SNORF62 receptor or a human or rat SNORF72 receptor.

169. The process of any one of claims 159, 160 or 164, wherein the cell is an insect cell.

170. The process of any one of claims 159, 160 or 164, wherein the cell is a mammalian cell.

171. The process of claim 170, wherein the mammalian cell is nonneuronal in origin.

172. The process of claim 171, wherein the nonneuronal cell is a COS-7 cell, CHO cell, 293 human embryonic kidney cell, NIH-3T3 cell or LM(tk-) cell.

173. The process of claim 159, 161, 162 or 163, wherein the compound is not previously known to bind to a mammalian SNORF62 receptor.

174. The process of claim 160, 161, 162 or 163, wherein the compound is not previously known to bind to a mammalian SNORF72 receptor.

175. A compound determined by the process of claim 173 or 174.

176. A composition which comprises an amount of a mammalian SNORF62 receptor agonist determined to be such by the process of claim 159, 161, 162 or 163, effective to increase activity of the mammalian SNORF62 receptor and a carrier.

177. A composition which comprises an amount of a mammalian SNORF72 receptor agonist determined to be such by the process of claim 160, 161, 162 or 163, effective to increase activity of the mammalian SNORF72 receptor and a carrier.

178. A composition of claim 176, wherein the mammalian SNORF62 receptor agonist is not previously known.

179. A composition of claim 177, wherein the mammalian SNORF72 receptor agonist is not previously known.

180. A composition which comprises an amount of a mammalian NMU receptor antagonist determined to be such by the process of claim 164, 165, 166 or 167, effective to reduce activity of the mammalian NMU receptor and a carrier.

181. A composition of claim 180, wherein the mammalian NMU receptor antagonist is not previously known.

182. A method of screening a plurality of chemical compounds not known to activate a mammalian SNORF62 receptor to identify a compound which activates the mammalian SNORF62 receptor which comprises:

(a) contacting cells transfected with and expressing the mammalian SNORF62 receptor with the plurality of compounds not known to activate the mammalian SNORF62 receptor, under conditions permitting activation of the mammalian SNORF62 receptor;

(b) determining whether the activity of the mammalian SNORF62 receptor is increased in the presence of one or more of the compounds; and if so

(c) separately determining whether the activation of the mammalian SNORF62 receptor is increased by any compound included in the plurality of compounds, so as to thereby identify each compound which activates the mammalian SNORF62 receptor.

183. A method of screening a plurality of chemical compounds not known to activate a mammalian SNORF72 receptor to identify a compound which activates the mammalian SNORF72 receptor which comprises:

(a) contacting cells transfected with and expressing the mammalian SNORF72 receptor with the plurality of compounds not known to activate the mammalian SNORF72 receptor, under conditions permitting activation of the mammalian SNORF72 receptor;

(b) determining whether the activity of the mammalian SNORF72 receptor is increased in the presence of one or more of the compounds; and if so

(c) separately determining whether the activation of the mammalian SNORF72 receptor is increased by any compound included in the plurality of compounds, so as to thereby identify each compound which activates the mammalian SNORF72 receptor.

184. A method of claim 182, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

185. A method of claim 183, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

186. A method of screening a plurality of chemical compounds not known to inhibit the activation of a mammalian NMU receptor to identify a compound which inhibits the activation of the mammalian NMU receptor, which comprises:

(a) contacting cells transfected with and expressing the mammalian NMU receptor with the plurality of compounds in the presence of a known mammalian NMU receptor agonist, under conditions permitting activation of the mammalian NMU receptor;

(b) determining whether the extent or amount of activation of the mammalian NMU receptor is reduced in the presence of one or more of the compounds, relative to the extent or amount of activation of the mammalian NMU receptor in the absence of such one or more compounds; and if so

(c) separately determining whether each such compound inhibits activation of the mammalian NMU receptor for each compound included in the plurality of compounds, so as to thereby identify any compound included in such plurality of compounds which inhibits the activation of the mammalian NMU receptor.

187. A method of screening a plurality of chemical compounds not known to inhibit the activation of a mammalian SNORF72 receptor to identify a compound which inhibits the activation of the mammalian SNORF72 receptor, which comprises:

(a) contacting cells transfected with and expressing the mammalian SNORF72 receptor with the plurality of compounds in the presence of a known mammalian SNORF72 receptor agonist, under conditions permitting activation of the mammalian SNORF72 receptor;

(b) determining whether the extent or amount of

activation of the mammalian SNORF72 receptor is reduced in the presence of one or more of the compounds, relative to the extent or amount of activation of the mammalian SNORF72 receptor in the absence of such one or more compounds; and if so

(c) separately determining whether each such compound inhibits activation of the mammalian SNORF72 receptor for each compound included in the plurality of compounds, so as to thereby identify any compound included in such plurality of compounds which inhibits the activation of the mammalian SNORF72 receptor.

188. A method of claim 186, wherein the mammalian NMU receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

189. A method of claim 187, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

190. A method of any one of claims 182, 183, 184, 185, 186, 187 or 188, wherein the cell is a mammalian cell.

191. A method of claim 190, wherein the mammalian cell is non-neuronal in origin.

192. The method of claim 191, wherein the non-neuronal cell is a COS-7 cell, a 293 human embryonic kidney cell, a LM(tk-) cell or an NIH-3T3 cell.

193. A composition comprising a compound identified by the method of claim 182 or 184 in an amount effective to increase mammalian SNORF62 receptor activity and a carrier.

194. A composition comprising a compound identified by the method of claim 183 or 185 in an amount effective to increase mammalian SNORF72 receptor activity and a carrier.

195. A composition comprising a compound identified by the method of claim 186 or 188 in an amount effective to decrease mammalian SNORF62 receptor activity and a carrier.

196. A composition comprising a compound identified by the method of claim 187 or 189 in an amount effective to decrease mammalian SNORF72 receptor activity and a carrier.

197. A method of treating an abnormality in a subject wherein the abnormality is alleviated by increasing the activity of a mammalian SNORF62 receptor which comprises administering to the subject a compound which is a mammalian SNORF62 receptor agonist in an amount effective to treat the abnormality.

198. A method of treating an abnormality in a subject wherein the abnormality is alleviated by increasing the activity of a mammalian SNORF72 receptor which comprises administering to the subject a compound which is a mammalian SNORF72 receptor agonist in an amount effective to treat the abnormality.

199. A method of treating an abnormality in a subject wherein the abnormality is alleviated by decreasing the activity of a mammalian SNORF62 receptor which comprises administering to the subject a compound which is a mammalian SNORF62 receptor antagonist in an amount effective to treat the abnormality.

200. A method of treating an abnormality in a subject wherein the abnormality is alleviated by decreasing the activity of a mammalian SNORF72 receptor which comprises administering to the subject a compound which is a mammalian SNORF72 receptor antagonist in an amount effective to treat the abnormality.

201. A process for making a composition of matter which specifically binds to a mammalian NMU receptor which comprises identifying a chemical compound using the process of any one of claims 93, 94, 102 or 103 and then synthesizing the chemical compound or a novel structural and functional analog or homolog thereof.

202. The process of claim 201, wherein the mammalian NMU receptor is a mammalian SNORF62 receptor.

203. The process of claim 201, wherein the mammalian NMU receptor is a mammalian SNORF72 receptor.

204. The process of claim 202, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

205. The process of claim 203, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

206. A process for making a composition of matter which specifically binds to a mammalian SNORF62 receptor which comprises identifying a chemical compound using the process of claim 72 or 73 and then synthesizing the chemical compound or a novel structural and functional analog or homolog thereof.

207. A process for making a composition of matter which specifically binds to a mammalian SNORF72 receptor which comprises identifying a chemical compound using the process of claim 74 or 75 and then synthesizing the chemical compound or a novel structural and functional analog or homolog thereof.

208. The process of claim 206, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

209. The process of claim 207, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

210. A process for making a composition of matter which specifically binds to a mammalian SNORF62 receptor which comprises identifying a chemical compound using the process of any of claims 145, 159, or 182 and then synthesizing the chemical compound or a novel structural and functional analog or homolog thereof.

211. A process for making a composition of matter which specifically binds to a mammalian SNORF72 receptor which comprises identifying a chemical compound using the process of any of claims 147, 160, or 183 and then synthesizing the chemical compound or a novel structural and functional analog or homolog thereof.

212. The process of claim 210, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

213. The process of claim 211, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72

receptor.

214. A process for making a composition of matter which specifically binds to a mammalian NMU receptor which comprises identifying a chemical compound using the process of claim 164 or 186 and then synthesizing the chemical compound or a novel structural and functional analog or homolog thereof.

215. The process of claim 214, wherein the mammalian NMU receptor is a mammalian SNORF62 receptor.

216. The process of claim 214, wherein the mammalian NMU receptor is a mammalian SNORF72 receptor.

217. The process of claim 215, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

218. The process of claim 216, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

219. A process for making a composition of matter which specifically binds to a mammalian SNORF62 receptor which comprises identifying a chemical compound using the process claim 146 and then synthesizing the chemical compound or a novel structural and functional analog or homolog thereof.

220. A process for making a composition of matter which specifically binds to a mammalian SNORF72 receptor which comprises identifying a chemical compound using the process of claim 148, and then synthesizing the chemical compound or a novel structural and functional analog or

homolog thereof.

221. The process of claim 219, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

222. The process of claim 220, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

223. A process for preparing a composition which comprises admixing a carrier and a pharmaceutically effective amount of a chemical compound identified by the process of any of claims 72, 73, 93, 94, 103 or 104 or a novel structural and functional analog or homolog thereof.

224. A process for preparing a composition which comprises admixing a carrier and a pharmaceutically effective amount of a chemical compound identified by the process of any of claims 74, 75, 93, 94, 103 or 104 or a novel structural and functional analog or homolog thereof.

225. The process of claim 223, wherein the mammalian SNORF62 receptor or the mammalian NMU receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

226. The process of claim 224, wherein the mammalian SNORF72 receptor or the mammalian NMU receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

227. A process for preparing a composition which comprises admixing a carrier and a pharmaceutically effective amount of a chemical compound identified by the process of any of claims 145, 159, or 182 or a novel structural and functional analog or homolog thereof.

228. A process for preparing a composition which comprises admixing a carrier and a pharmaceutically effective amount of a chemical compound identified by the process of any of claims 147, 160, or 183 or a novel structural and functional analog or homolog thereof.

229. The process of claim 227, wherein the mammalian SNORF62 receptor is a human SNORF62 receptor.

230. The process of claim 228, wherein the mammalian SNORF72 receptor is a human SNORF72 receptor.

231. A process for preparing a composition which comprises admixing a carrier and a pharmaceutically effective amount of a chemical compound identified by the process of any of claims 146, 164 or 186 or a novel structural and functional analog or homolog thereof.

232. A process for preparing a composition which comprises admixing a carrier and a pharmaceutically effective amount of a chemical compound identified by the process of any of claims 148, 164 or 186 or a novel structural and functional analog or homolog thereof.

233. The process of claim 231, wherein the mammalian SNORF62 receptor or the mammalian NMU receptor is a human SNORF62 receptor or a rat SNORF62 receptor.

234. The process of claim 232, wherein the mammalian SNORF72 receptor or the mammalian NMU receptor is a human SNORF72 receptor or a rat SNORF72 receptor.

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